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CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT

CD NO.

COUNTRY Germany/USSR

DATE DISTR. 2 March 1950

SUBJECT T/O of German V-2 Rocket Launching Units; Components of FMS Trains

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DATE OF INFO.

SUPPLEMENT REPORT NO.

THIS IS UNEVALUATED INFORMATION

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After some necessary reorganization, the order of battle of the V-2 division at the end of the war was as indicated below. This order of battle was proved to meet any demands in action.

Division or Special Assignment

North Group
1st V-2 Regiment
(each regiment with 3 battalions)

South Group
2d V-2 Regiment

1. Regiment

Headquarters with special branch for technical issues, assigned to the tactical group
Signal battery
Headquarters battery
Survey platoon
Attached: 1 engineer company
1 radio intercept company
1 military police platoon
1 secret field police squad

2. Battalion (1,600 personnel and about 220 motor vehicles)

Headquarters
Signal communication platoon
Headquarters battery
3 AA batteries (20-mm, four-barreled, mechanized)
1 security detachment, with 1 AT platoon and 1 armored infantry platoon
1 engineer platoon (detailed from the engineer company of regimental headquarters)
1 radio intercept platoon (detailed from the radio intercept company of regimental headquarters)
"A" Battery - firing battery
3 firing platoons with refueling squads, etc. compare with the below listed scheme

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"B" Battery - technical battery
"C" Battery - supply battery (fuel and rockets)

3. Firing battery general organization and trains of standard type (compare the annexed employment scheme)

3 firing platoons, each with the following technical personnel:

1 fire direction officer
1 firing platoon leader
1 motorcycle messenger
1 passenger car with driver

Survey and laying squad:

1 NCO
2 EM
1 driver

Crew of fire direction tank:

2 NCOs
1 telephone operator
1 driver

Power plant squad:

1 NCO
5 EM
1 driver

Car service squad (Meiller car):

1 NCO
6 EM
3 drivers

Electrical engineering squad:

1 NCO
5 EM
1 driver

The above personnel has to emplace and erect the rocket for firing and make a general test connection before the following squads begin to operate:

A-stoff fueling squad:

1 NCO
2 EM
1 driver

B-stoff fueling squad:

1 NCO
2 EM
2 drivers

T-Stoff and **Z-stoff** refueling squad:

1 NCO
1 driver

The rocket, having been fueled is discharged on battalion order by the crew in charge of fire direction (fire direction officer, power plant engineer, radio engineer) at X-time.

4. Technical Battery

The organization and supply of this battery are standard. It is composed of the following special squads:

a. Field dump personnel in charge of storing and maintaining of equipment (capacity: 30 rockets).

b. Checking squad, exact checking of the supplied rockets.

c. Repair shop, repair of equipment (including ground installations) by means of field maintenance.

d. Warhead fitting squad, fitting of the warhead to the rocket nose by the Strabo type crane.

5. Fuel and Rockets (Supply) Battery

Standard organization and supply; besides, according to its purpose:

3 A-stoff fueling squads 3 B-stoff fueling squads 3 T and Z-stoff fueling squads	1 of each type per firing platoon of the firing battery

Each platoon and squad has a pumping detail for pumping the fuel from the tank cars into the tank trucks. From the railhead, fuel is carried directly to the trains assembly area at the firing position. One "Vidal" truck detail to carry the rockets and spare parts from the railhead to the field depot.

6. The rockets are trucked on Meiler cars from the technical battery to the firing position by the car service squads of the firing battery. Circuit traffic has to be organized, so that, after discharge, the empty Meiler car leaves the position without blocking the next rocket to be launched. After discharge, the empty Meiler car moves to the compressor where the installed compressed air bottles are refilled (compressed air is required for pressing the valves on the test connections prior to fueling the rockets). From the compressor it goes to the technical battery.

7. Every position on fairly solid roads in forests and dense parks is suitable if the trees are high. There are no typical indications of a V-2 firing emplacement unless it is revealed by deep-rutted ways. To avoid this, the engineer squad is employed for permanent road maintenance. The intense motor traffic would facilitate reconnaissance of the emplacement, so any trucking is done by darkness. 50X1-HUM

8. Control beam squad and final-checking squad are not dealt with, because, by the end of the war, they were no longer required due to the introduction of the time switch device and efficient automatic directional controls.

9. For special vehicles see "D" Section.

B. Time Table for Preparatory Work

10. The time needed for preparatory work depends on the training of the operators, the weather conditions and access roads. The below data represent average times corresponding to the average condition of all factors exercising influence on the speed of operation.

X - Discharge time, numbers precedent and subsequent to X-minutes.

X - 90 to X 70	Emplacing and vertical adjustment of rocket
X - 70 to X 30	Checking, concluded by general test connection
X - 30	Fueling
X - 15	Closing of shutters (instruments chamber)
X - 10	Adjustment of fire direction
X - 5	Evacuation of emplacement
X - 4	Ultimate examination of air situation
X - 2	Report "Ready"
X - 1	Fire order, igniting
X	Discharge

C. FMS Train

11. FMS - Fahrbare meteorologische Station (Mobile Meteorological Station) is the cover name of a unit firing long-distance V-2 rockets. This outfit can be employed for firing long-distance rockets which were previously checked in the laboratory cars of the train, either directly from a railroad line or from any terrain. [redacted] work with the BLEICHERODE Central Plant on 20 October 1946, the first FMS train was nearly completed, the design of the second had been completed and production started. [redacted] 50X1-HUM 50X1-HUM It was originally planned to practice the FMSes firing in PEENEMUENDE (former German experimental institute on USEDOM island).

12. Most of the FMS operators were members of the former PEENEMUENDE staff. Some had been taken to BLEICHERODE from the dismantled Arado aircraft plant in FRANDENBURG on the Havel River.

13. After the German V-2 experts (about 250 families) had been deported the RAABE rocket institute and the management of the central plant, except small liquidating agencies, were dissolved [redacted] 50X1-HUM

14. The FMSes were first made adjustable to Soviet railroad gauge which had not been originally planned. The following completion dates were set:

FMS I - immediately
FMS II - 1 January 1947.

15. An additional Soviet officer was detailed to each special car of FMS II. These officers were given any authority necessary for the prodrurement of special equipment, tools, etc. throughout the Soviet Zone. German buying agents had to procure component parts [redacted] 50X1-HUM
Composition: Each FMS consisted of 2 trains, rocket-carrying special trains exclusively.

D. FMS I

16. 1st train section

5 sleeping (sitting)cars
1 dining car
1 medical car
1 office car furnished with radio and telephone central
1 evaluation car - survey, calculation of firing data, draftsmen, etc.
1 picture car with motion picture and photographic sections
1 power station, Diesel engine for supplying the train with current, and check service
1 compressor car for compressed air supply and check service
1 repair shop car
3 laboratory cars for checking component parts and total outfit (final check in horizontal position)
1 car for motor maintenance shop
1 car for radio equipment of the rocket (Messina)
1 headquarters and saloon car equipped with armored cabin and telescope for observation of take off and trajectory
Several empty flatcars to be loaded with passenger cars, trucks, and busses for operators and spectators
1 refrigerator car for kitchen provisions
1 water car (driking and kitchen water)
1 escort personnel car.

17. 2d train section

1 flatcar for Meiler car
1 flatcar for Vidal car
1 flatcar for propelling plant-carrying trucks and discharge platform
1 flatcar for fire-directing tank
1 flatcar for generator trucks and T-agent heating equipment
1 flatcar for Strabo crane
1 flatcar for 2 survey trucks
3 flatcars for A-agent-carrying tank trucks with pumping trailers
3 flatcars for B-agent-carrying tank trucks with pumping trailers
1 flatcar for T-agent-carrying tank truck with pumping trailer
1 flatcar for fire extinguisher with fire engine
Several empty flatcars for personnel carriers
3 A-agent-carrying railroad tank cars
3 B-agent-carrying railroad tank cars
1 T-agent-carrying railroad tank car

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2 freight cars for standard and spare parts (rocket accessories and spare parts)
1 flatcar with side racks for ties and bridge equipment
1 flatcar with side racks for narrow-gauge field tracks and lorries for fitting rockets (tail firing mechanism, lorry for central section of rocket, [redacted] war-head fitting, etc.) 50X1-HUM
1 flatcar with side racks carrying 2 collapsible loading ramps
1 freight car for gasoline and Diesel oil
9 group cars carrying rockets (3 groups - 6 rockets); combination of uncovered freight car and passenger car types
1 Meiler railroad car furnished with discharge platform for railroad operation
1 car for escort personnel.

E. FMS II

18. 1st train section

In general the same as FMS I. A lavatory and bathing car had been added after the medical car. The FMS II contained two sets of laboratory cars (3 laboratory cars per train section of a total of 6 cars). Checking could be done on a larger scale and the rate of discharges increased provided the rockets were ready for action.

19. 2d train section

The same as FMS I.

F. General Data on Both FMSes

20. Originally, the FMSes had been designed only for German railroad gauge. In late 1946 (?) they were re-equipped for adjustable wheel sets. The FMS II had always been designed for use on German and Soviet railroad gauges. The motor vehicles, except those of technical design, were constructed at the KLEIN-BODUKEN Plant No. III. The factory did not provide commercial motor vehicles (passenger cars, trucks and busses) but the cars carrying them were supplied by the factory.

21. The train's electric light installations and power plant were designed for connection with an available local network, for current supply from the built-in power station, and for storage battery operation.

22. The heating installation was threefold: Steam-heating supplied from the engine; electric heating supplied from storage batteries (could be switched to a local network), and stove heating. The whole heating equipment was adjusted to an outside temperature down to -40°C.

23. It had first been planned to add freight cars to carry the adjustable wheel sets but this plan was given up. A rocket-carrying special train of 90 group cars (loading capacity of 60 rockets) had been devised. This train was made at a German railroad car building plant, probably in GOTHA.

24. The FMSes did not show any remarkable improvement as to technical design. The whole outfit has been taken over in the state of development reached by the Germans at the end of the war.

25. Any equipment, especially the most sensitive instruments installed in the laboratory cars, operated, until acceptance, in an unobjectionable way. The places where these instruments and the machinery in the repair shop cars were to be fitted, were changed several times until suitable places had been located by driving and shaking tests. Experience in the use of the FMSes is not available.

Some final remarks on the evacuation of the V-2 production to the SU and its trial there may be added:

26. a. According to information, V-2 rockets are being produced in the Ural and tests and fire operation are done in the KALININ area. This regional distribution is in accordance with the German principles followed during the war. According to these principles, production is to be established where it can hardly be reached by enemy air force, but for firing operation, including the important air liquefying plant, such places are to be preferred as are close to the future employment area and are accessible by good traffic communications.

b. The reasons are evident: Liquefied air evaporates quickly, even when stored or shipped. If shipping distances are too great, it would be impossible to supply the quantities of liquid air required for operation. Under these circumstances, the A-agent-carrying tank cars would reach the employment area half, or even less, filled and the rockets could not be discharged as scheduled.

[redacted] Comment: 50X1-HUM

a. This report gives another survey of organization and equipment of the former division on special assignment, which was organized for V-2 employment. This survey is to facilitate special conclusions on the Soviet improvement of the Soviet-owned FMS trains.

b. Production of FMS trains has been mentioned several times [redacted] on the V-2 weapons plants located in the Southern Harz Mts. [redacted] 50X1-HUM

[redacted] one FMS train was seen at the KALININGRAD V-weapons factory which is in the vicinity of "OSCO" and another train in the "OSCO"-KHIMKI experimental plant. The reports on these plants say that the train stationed in KALININGRAD until January 1948 left the plant several times, carrying two V-rockets, allegedly bound for LENINGRAD. [redacted] 50X1-HUM

[redacted]

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c. The assumption voiced in Part G on further V-weapons plants cannot be confirmed. Only data on reconstruction of dismantled factory equipment are available. [redacted] 50X1-HUM

[redacted]

A Firing battery

I)
II) Firing platoons
III)

I and II composed as III

1 V-2 on firing platform
2 Meiller car
3 Propelling plant truck
4 Current supply truck
5 Prime mover for close limber
6 Fire-control tank
7 Survey squad
8 Fire extinguishing squad
9 Compressor-carrying truck
10 Assembly position of gasoline convoy
11 Battery command post
12 Train and limbers of maintenance squad

B Technical battery

1 Command post
2 Train of maintenance platoon
3 Maintenance platoon (repair shops, etc.) and checking platoon
4 Warhead fitting
5 Field dump for about 50 V-2s

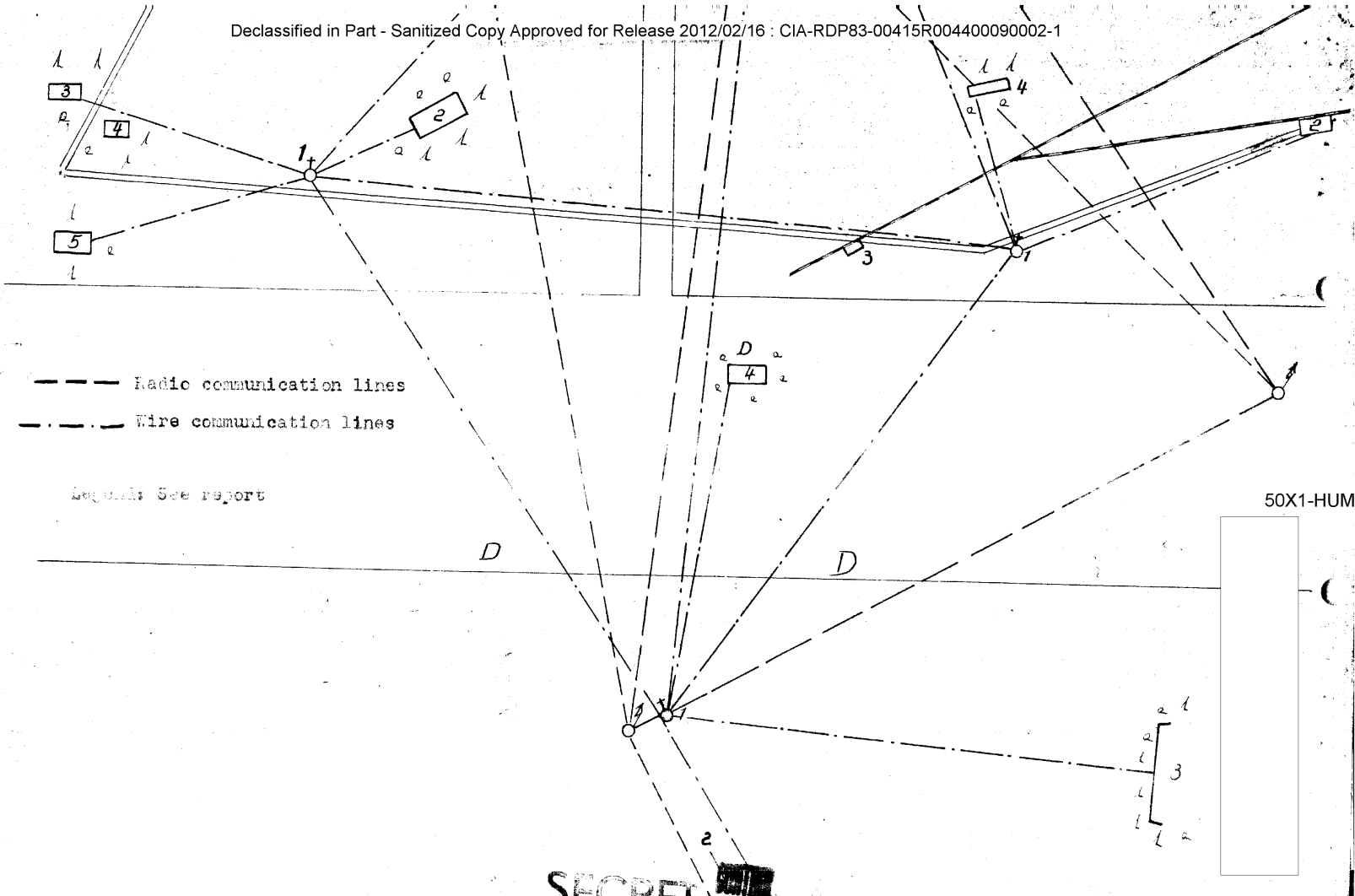
The V-2s are trucked from C2 on Vidal car

C Fuel and rockets (supply battery)

1 Command post
2 Railhead for fuels
3 Railhead for V-2s
4 Train of maintenance platoon

D Battalion headquarters

1 Headquarters
2 Signal communications with regiment
3) Trains
4)



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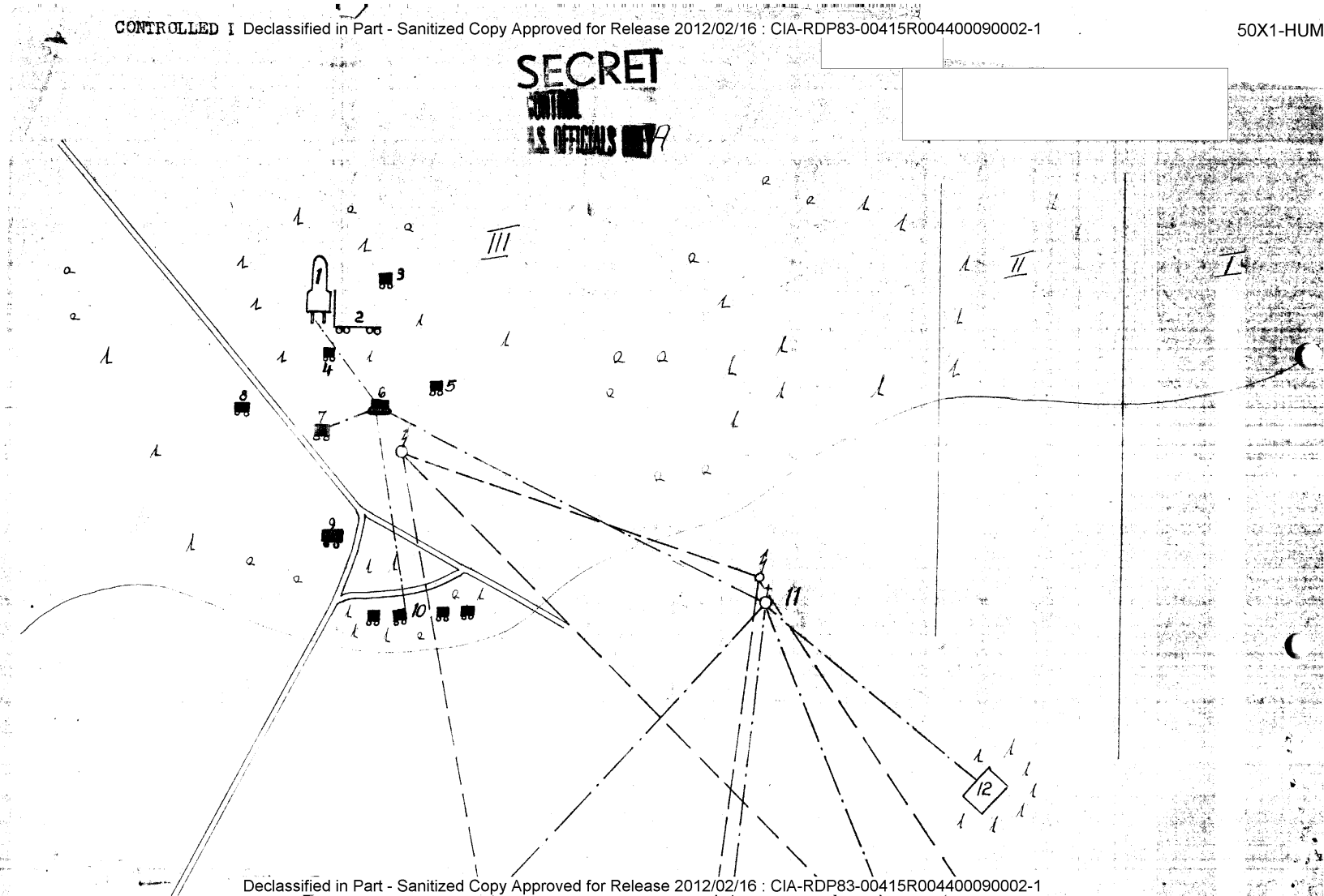

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